

Guide to the Quill

Deth



—

—

—

—

—

GOVERNMENT OF INDIA
DEPARTMENT OF ARCHAEOLOGY
CENTRAL ARCHAEOLOGICAL
LIBRARY

CLASS 228.407

CALL No. 913.05 *Out-Pay*

D.G.A. 79.



GUIDE TO THE QUTB, DELHI

BY

J. A. PAGE,

Archæological Survey of India

22846



Sp Coll

CALCUTTA : GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1927

Price Rs. 2-10 or 4s. 9d.

Government of India Publications are obtainable from the Government of India Central Publication Branch, Imperial Secretariat Building, 3, Government Place, W., Calcutta, and from the following Agents:—

EUROPE.

OFFICE OF THE HIGH COMMISSIONER FOR INDIA,

42, GROSVENOR GARDENS, LONDON, S.W. 1.

And at all Booksellers.

INDIA AND CEYLON

Provincial Book Depôts :

MADRAS :—Office of the Superintendent, Government Press, Mount Road, Madras.

BOMBAY :—Superintendent, Government Book Depôt, Town Hall, Bombay.

SIND :—Library attached to the Office of the Commissioner in Sind, Karachi.

BENGAL :—Office of the Bengal Secretariat Book Depôt, Writers' Buildings, Room No. 1, Ground Floor, Calcutta.

UNITED PROVINCES OF AGRA AND OUDH :—Office of the Superintendent of Government Press, United Provinces of Agra and Oudh, Allahabad.

PUNJAB :—Office of the Superintendent, Government Printing, Punjab, Lahore.

BURMA :—Office of the Superintendent, Government Printing, Burma, Rangoon.

CENTRAL PROVINCES AND BHERAR :—Office of the Central Provinces Secretariat, Nagpur.

ASSAM :—Office of the Superintendent, Assam Secretariat Press.

BIHAR AND ORISSA :—Office of the Superintendent, Government Printing, Bihar and Orissa, P. O. Gulzarbagh, Patna.

COORG :—Office of the Chief Commissioner of Coorg, Bangalore.

NORTH WEST FRONTIER PROVINCE :—Office of the Manager, Government Printing and Stationery, Peshawar.

Thacker, Spink & Co., Calcutta and Simla.

W. Newman & Co., Ltd., Calcutta.

R. Cambray & Co., Calcutta.

S. K. Lahiri & Co., Calcutta.

The Indian School Supply Depôt, 309, Bow Bazar Street, Calcutta, and 226, Nawabpur, Dacca.

Butterworth & Co., (India), Ltd., Calcutta.

Rai M. C. Sarcar Bahadur & Sons, 90-2A, Harrison Road, Calcutta.

The Weldon Library, 17, Park Street, Calcutta.

Standard Literature Company, Limited, Calcutta.

Association Press, Calcutta.

Chukerverty, Chatterjee & Co., Ltd., 13, College Square, Calcutta.

The Book Company, Calcutta.

James Murray & Co., 12, Government Place, Calcutta. (For Meteorological Publications only).

Roy (Chaudhury & Co., 62/5, Russa Rd., North, Calcutta.

Higginbotham & Co., Madras.

V. Kalyanarama Iyer & Co., Madras.

P. R. Rama Iyer & Co., Madras.

Boehouse & Sons, Madras.

G. A. Natesan & Co., Publishers, George Town, Madras.

The Modern Store, Salem, Madras.

Bright & Co., Trivandrum.

The Booklover's Resort, Talkad, Trivandrum, South India.

V. S. Swaminathan, Bookseller, West Tower Street, Madras.

E. M. (opalkrishna Kone, Padumandapam, Madras.

Vijapur & Co., Vizagapatam.

Thacker & Co., Ltd., Bombay.

D. B. Taraporevala, Sons & Co., Bombay.

Sunder Pandurang, Bombay.

Ram Chandra Govind & Sons, Kalbadevi, Bombay.

N. M. Tripathi & Co., Booksellers, Princess Street, Kalbadevi Road, Bombay.

R. B. Umadikar & Co., The Bharat Book Depôt, Dharwar.

Proprietor, New Kitabkhana, Poona.

The Manager, Oriental Book Supplying, Agency, 15, Shukrawar, Poona City.

R. S. Gondhalekar's Book Depôt, Publisher and Bookseller, Budhwar Chawk, Poona City.

Managing Director, Co-operative Bookstall, Booksellers and Publishers, Poona City.

The Standard Bookstall, Karachi, Quetta; Delhi, Murree and Rawalpindi.

J. Ray & Sons, 43, K. & L. Edwardes Road, Rawalpindi.

The Standard Bookstall, Quetta.

The Standard Book Depôt, Lahore, Lucknow, Nalindal, Mussoorie, Dalhousie and Ambala Cantonment.

Karsandas Narandas & Sons, Surat.

Mangaldas & Sons, Booksellers and Publishers, Bhaga Talao, Surat.

Mrs. Radhabhai Atmaram Sagoon, Kalbadevi Road, Bombay.

A. H. Wheeler & Co., Allahabad, Calcutta and Bombay.

The Karachi Book Depôt, Karachi.

N. B. Mathur, Supdt., Nazir Kanun Hind Press, Allahabad.

The North India Christian Tract and Book Society, 18, Clive Road, Allahabad.

Ram Dayal Agarwala, 184, Katra, Allahabad.

Manager, Newal Kishore Press, Lucknow.

The Upper India Publishing House, Ltd., 41, Aminabad Park, Lucknow.

Munshi Seeta Ram, Managing Proprietor, Indian Army Book Depôt, Juhl, Cawnpore.

Rai Sahib M. Gulab Singh & Sons, Muft-Am Press, Lahore and Allahabad.

Rama Krishna & Sons, Booksellers, Anarkali, Lahore.

Puri Brothers, Booksellers and Publishers, Katcheri Road, Lahore.

The Tilak School Bookshop, Lahore.

The Standard Bookstall, Lahore.

Manager of the Imperial Book Depôt, 63, Chandni Chawk Street, Delhi.

Oxford Book and Stationery Company, Delhi.

Supdt., American Baptist Mission Press, Rangoon.

Proprietor, Rangoon Times Press, Rangoon.

The Modern Publishing House, Ltd., 30, Phayre Street, Rangoon.

The International Buddhist Book Depôt, Post Box No. 971, Rangoon.

Burma Book Club, Ltd., Rangoon.

Manager, the "Hitavada," Nagpur.

Bhisey Brothers, Booksellers and Stationers, Sitabaldi, Nagpur.

S. C. Talukdar, Proprietor, Students & Co. Cooch Behar.

Times of Ceylon Co., Ltd.

The Manager, Ceylon Observer, Colombo.

The Manager, The Indian Book Shop, Benares City.

B. C. Basak, Esq., Proprietor, Albe Library, Dacca.

The Srivilliputtur Co-operative Trade Union, Ltd., Srivilliputtur (Satu E.I.I.)

Banwari Lal, Esq., Pakariya Street, Pilibhit United Provinces.

The Manager, Educational Book Depôt, Jullahpore.

Raghunath Prasad & Sons, Patna City.

Dandekar Brothers, Indore City.

The Hyderabad Book Depôt, Chaderghat, Hyderabad (Deccan).

CONTENTS.

| | Page |
|---|------|
| Illustrations | v |
| Bibliographical References | vi |
| The Qutb, Delhi. Descriptive Account | 1 |
| Résumé of Excavation and Conservation work done at the Qutb since 1910 | 28 |
| Index | vii |

CENTRAL ARCHAEOLOGICAL LIBRARY, NEW DELHI.

Acc. No. 22840

Date 27. 24. 2. 56

Call No. 913. 057. Ant. / pag.

ILLUSTRATIONS.

(a) DRAWINGS.

- I.—General plan of the Qutb Mosque.
- II.—Conjectural reconstruction of the Qutb Mosque, c.1315; perspective view.
- III.—Elevations and section, as restored, of the Alai Darwaza.
- IV.—Comparative silhouette diagrams of the Qutb Minar as Altamish completed it and as Firozshah repaired and heightened it.
- V.—Sketch of Entrance doorway of Minar, differentiating the new work from the old in Smith's repair of 1828.
- VI.—Detail of stalactite corbelling beneath 1st storey balcony of Minar.

(b) PHOTOGRAPHS.

- VII.—View of Qutbu-d-din's Great Screen, from S. S. E.
- VIII.—Detail of Hindu carved ornamentation of Qutbu-d-din's original Great Screen.
- IX.—Detail of arabesque surface decoration of Altamish's extension of screen.
- X.—View of East Colonnade of Qutbu-d-din's original mosque, from N. W.
- XI.—(a) Obverse of Hindu sculptured stones, the reverse of which is inscribed with Naskh lettering (Islamic).
(b) Reverse of (a), showing the Naskh lettering.
- XII.—View of south facade of Alai Darwaza as repaired by Major Smith, R. E., in 1828. (Compare reconstructed upper parapet in drawing plate no. III).

BIBLIOGRAPHICAL REFERENCES.

- A. S. R. . . . *Archæological Survey Reports* by General
Sir Alexander Cunningham. Vols. I and
IV.
- Elliott and Dowson . *History of India, as told by its own historians,*
by Elliott and Dowson. Vols. I-VII.
(Trubner, London.)
- Saladin *L'Architecture: Manuel d'art Mussulman,*
by Saladin. (Picard, Paris.) Vol. I.

GUIDE TO THE QUTB.

THE QUTB, DELHI.

DESCRIPTIVE ACCOUNT.

Among the many historical remains at Delhi,¹ the most notable both in point of antiquity and arresting design is the Qutb—a name given to the group of monuments embracing the Quwwatu-l-Islam Mosque of Qutbu-d-din Aibak and its great Minar, which stands out as a landmark for miles around. Included in the group are the Tomb of Altamish, the Madrassa (College), and what is believed to be the Tomb of Alau-d-din Khalji. These three monarchs were, in turn, responsible for the construction of the original fabric

¹ Delhi, as an historical city and as distinct from the legendary Indraprastha (Indrapat), it should be remarked, dates only from the end of the 10th Century (993-94 A.D.), when it was founded by Anandpala of the Tomara clan of Rajputs, who gave it the name of Lalkot (Red City). It was captured from the Tomaras by Vighraha Raja, Chohan, about the middle of the 12th Century, to whose kingdom of Sambhar and Ajmir it was merely an appendage, governed at the time of Muhammad Ghori's invasion by the Raja's brother, (*Vide* Lane Poole's *Medieval India*, p. 51). Delhi has no imperial history prior to the advent of the 12th Century Turks.

of this, the earliest mosque extant in India, and for its subsequent additions and extensions.

The Mosque built, it is said,¹ upon the site of a demolished Hindu temple and constructed piecemeal with materials taken from twenty-seven others², was erected as a monument to the " Might of Islam " (Quw-watu-l-Islam) by Qutbu-d-din Aibak, slave, army commander, and Viceroy of Muizzu-d-din Muhammad Ghori ibn Sam, King of Ghazni, to celebrate his decisive victory over the Rajput forces of the Chohan chief, Prithvi Raj, in A. D. 1192, on the field of Narain; and the Minar, commenced by this same conqueror as an adjunct to the mosque, combined the purposes of a tower of victory and a mazinah, from which to sound the azam call to prayer—a monument to overawe the spirit of the vanquished " infidel " peoples, and sustain the courage of the " faithful " exiled from their distant Afghan hills.

THE MOSQUE.

With regard to the founding of the original mosque, the internal evidence³ existing appears to indicate that, besides being located on the site of a demolished Hindu temple, the mosque embodied in itself a definite portion of that structure, up to the plinth level. The extent of this problematical temple plinth appears to coincide with that half of the mosque quadrangle west of the north and south gateways.

¹ Ibn Batuta says: " Before the taking of Delhi it had been a Hindu Temple, which the Hindus called Elbut-khana, but after that event it was used as a mosque." (A. S. R. IV. 46.)

² As recorded in the Arabic inscription on the East Gateway.

³ This evidence is set out in detail in the *Archæological Survey Memoir* No. 22.

The plan and the perspective view illustrated in Plates I and II will reveal more clearly than any written description the arrangement of the original mosque, and the extent of the subsequent additions by the emperors Altamish and Alau-d-din. Built in the shape of a simple rectangle enclosing a central quadrangular court, the mosque measures some 214 feet by 149 feet externally.¹ The prayer chamber on the west is four bays in depth; the colonnade on the east, of three bays, being deeper by one bay than those along the remaining two sides. Centrally, in the three colonnaded sides, occur entrances, a shallow porch to the north and a deeper one to the east and south descending by a flight of steps to the level of the ground outside. Over the north and east gates are inscribed lintels recording in Naskh characters the circumstances attending the erection of the mosque. In the four corners of the mosque secluded accommodation for the zanana was provided by means of little entresol apartments reached by narrow staircases in the thickness of the enclosing wall.

In the prayer chamber proper, the roof extended at one level over the greater part of the liwan, as is apparent from the positions of fragmentary roofing slabs and lintels still remaining in the back face of the great arched screen; while the tall column shafts still standing at the north end of this chamber afford clear indications that the level of the roof here was raised some four feet above that of the adjoining zanana

¹ The dimensions of the original Temple chabutra embodied in this area are 124 ft. by 149 ft.

chamber, which, in its turn, overtops the roof of the contiguous colonnades to the east.

Corbelled capitals with five-fold projections surmounting certain of the columns of the prayer chamber furnish evidence of previously existing lintels arranged to form an octagon in support of the domes indicated in the accompanying plan, and give a definite clue to the arrangement of the columns beneath them. The positions of the mihrab-recesses in the west wall further assist in the visualisation of the original arrangement of the fallen interior, the bays of which would naturally be set out in symmetry with them, and not with the openings of the great arched screen, which, erected as an afterthought when the liwan had been completed, conforms neither with the column spacing nor with the mihrab-recesses behind it.

The arrangement indicated in the plan aforementioned may be taken as being fairly authenticated by the existing internal evidence on the site, as revealed by a careful scrutiny of the remains.

A point of particular interest in this original portion of the structure is the ingenuity with which the despoiled Hindu materials were re-assembled by Hindu artisans to meet the demands of their Muhammadan masters. Columns of divers designs and different temples were ranged together, sometimes set one upon another, in continuous rows to support a roof constructed, in its turn, of the flat ceiling slabs and shallow corbelled domes taken bodily from some wrecked Hindu shrine. Sculptured figures, profane in the eyes of the

iconoclast Muslim, were roughly mutilated and hidden from sight by a covering of plaster ; sometimes built face inwards into the wall and the back inscribed with verses from the Holy Quran. (Plate XI).

Column shafts, bases, capitals, etc., obtained from the many despoiled temples were assembled, with no regard to fitness or even symmetry, to form pillars in support of the roof. Sivaite, Vaishnavite, Jaina images appear in a profusion eloquent of the thorough and impartial destruction of their " infidel " shrines, and of the genius for adaptation their desecrators exhibited in utilising the despoiled materials for their own purposes. All is improvised : no single feature but has been adapted and used second-hand.

Ornament of unoffending geometrical pattern was utilised when forthcoming from among the temple stones ; and when it came to the building of the great frontal screen, the Hindu craftsman was set to work upon alien arabesque designs and strange Naskh characters that must be woven in among his own sinuous patterns to frame a pointed arch—a feature again foreign to the whole tradition of trabeate Hindu construction. How essentially " Hindu " in feeling are the elements of the ornamental reliefs is apparent when one compares the carved bands on the original portion of the great screen of the Qutb mosque with the more characteristically " Saracenic " patterns ornamenting the subsequent extension of the same screen by the emperor Altamish when Muhammadan architectural forms and traditions had become more established in Hindustan. (Pls. VIII and IX).

This screen, erected by Aibak in 1199 A. D.,¹ is perhaps the most interesting feature of the mosque. As already noted, the bands of sinuous carving are, as regards their technique, wholly uninfluenced by Saracenic ideas. Their serpentine tendrils and undulating leaves are the work of the Hindu, who had developed these identical forms in his temples through generations of usage. The disposition of these foliated bands in the design of the facade is, on the other hand, characteristically Saracenic in motif, and reveals at once the relation between the Muhammadan constructor directing affairs and the Hindu artisan, on whose interpretation of his ideas he was dependent for the carrying out of his designs. The result is happy enough: the intricately carved surface gives a "texture" to the massive screen, and in the variations of the patterns and bands serves as an effective relief to the broad flat surfaces.

THE IRON PILLAR,

The iron pillar set up in the inner court axial with the main central arch of the screen is an interesting feature as affording evidence of the capacity of Hindu

¹ This date is inscribed on the face of the south pier of the central arch of the great screen. The screen would appear to have been completed two years after the completion of the remainder of the mosque in 1197 A.D., which date is recorded on the north gateway, together with the name of Sultan Muizzu-d-din ibn Sam. That it was erected after the columns of the prayer chamber had been set up is apparent in the fact that the stones of the screen are "scribed," to use a technical term, round the projections of the column capitals and bases at the north end, and these features are actually built into the back face of the screen masonry about the central arch.

civilisation in the 4th Century A.D. to weld malleable iron¹ on so ambitious a scale. (Pls. I and VII).

The pillar would appear to have been erected originally as a standard to support an image of Garuda, the vehicle of Vishnu, in front of a temple dedicated to that deity. The fluted "bell" capital with its amalaka members is a characteristic feature of the Gupta architecture of Northern India, and affords a clue to the period of its erection; and this evidence is substantiated by the Sanskrit inscription in Gupta characters of the 4th Century A.D. engraved on the pillar, recording its erection by a king named Chandra, a devotee of the god Vishnu, as a "lofty standard" of that divinity on "the Hill of Vishnupada".

The probabilities are that the pillar was set up in its present position by the Muhammadans, who prized it as a curious relic; the fact of the rough uneven surface near the base now exposed above ground seeming

¹ A chemical analysis of the iron made by Sir Robert Hadfield disclosed the following elements in its composition:—

| | per cent. |
|--|---------------|
| Carbon | 6.080 |
| Silicon | 0.046 |
| Sulphur | 0.000 |
| Phosphorus | 0.114 |
| Manganese | Nil |
| Total elements other than iron | 0.246 |
| Iron | 99.720 |
| TOTAL | 99.966 |

Specific gravity, 7.81. Ball hardness, No. 188.

It has been suggested that the pillar was cast in its present form and not forged; but the extreme purity of the iron composing it would rather tend to discount this possibility

to indicate fairly conclusively that the intention was that this portion of the pillar should be buried in the ground in the original site. (Cf. the similar feature of the Asoka *lat* at Kotla Firoz Shahi, Delhi.) Where this original site was there is no sufficient evidence to indicate. /

So much for the mosque proper of Qutbu-d-din Aibak, before the advent of Altamish and Alau-d-din Khalji.

ALTAMISH'S EXTENSION

Shamsu-d-din Altamish, Turk of Albari, and slave successor of his slave master to the Muhammadan throne of Delhi, was not content to leave this monument to invading Islam unmarked by any attention; but would add to its scale and dignity as a work of religious grace.

The additions and extensions he effected are indicated in the plan appearing in Pl. I. A wing was projected to north and south, and the enclosure extended to the east, impinging on the great minar south-west of Aibak's mosque. Outer entrances in each of these three sides were made axial with those of the original mosque, and the great screen was extended north and south in continuation of Qutbu-d-din's.)

(It is easy to discern in the symmetry that characterises the interior arrangement of the columns of Altamish's northern prayer chamber that mihrabs, columnar bays, and the spans of the arched openings in the great frontal screen were, from the first, conceived as a single homogeneous design, in contrast to the fortuitous

arrangement of these features in Aibak's original mosque. The high double-storeyed central bay with its surmounting dome shown in Pl. II is a conjectural feature, and relies for its authenticity on the existence, in the rear face of the great screen, of double corbels at the arch-springing, and the fragmentary remains of lintels and roofing slabs projecting at a lower level. These indications lead me to assume that the double-storeyed arrangement so common in the 15th Century Ahmadshahi architecture of Gujrat was anticipated by Altamish in his extension of this first mosque to be built by the Ghorid conquerors of India. If this upper domed storey did originally exist (and there is no evidence available on the site precluding the possibility), it must have formed a very prominent feature of the design, filled, as the upper intercolumniations doubtless were, with screens of geometrical jali to exclude the weather.

(Of Altamish's colonnades little now remains; but it is apparent that the supply of elaborately carved Hindu columns had given out, and that he was reduced to the relatively plain shafts and capitals that compose them. The feature of real interest is his extension of the great screen.)

Conformable in general design with the existing screen of Qutbu-d-din, Altamish's extension betrays a considerable advance in the adoption of Muhammadan forms of surface decoration. The arabesque patterns are purely Saracenic, their distinctive character being common to Saracenic architecture from India west to Spain.

The Arabic lettering, too, has advanced beyond the simple unelaborated shapes wrought by the "prentice" hand of the Hindu, and is evidently the work of a craftsman more familiar with the characters he is carving. Here, too, we see introduced a combination of the square Kufic and the elaborate and intricately interwoven Tughra characters. (Pls. VIII and IX).

The attached mutakha-columns set in the recessed angles of the pier-jambs are another feature of Altamish's screen extension that appears in Indo-Saracenic architecture for the first time, and it continues as a decorative form almost uninterruptedly throughout the Pathan period, and afterwards in Mughal architecture.

Altamish's arches in the great screen, while maintaining the same pointed form, differ in contour, it is curious to note, from those of Aibak; the piquant little counter-curve at the apex, with its slight suggestion of "ogee," being missing from the former, though it appears again in Altamish's Tomb (*infra*).

A further difference in his treatment of the screen extension is noticeable in the absence of the subsidiary upper arched-openings above the lower side arches flanking the central archway of the original screen. Though the upper parts of both Altamish's and Aibak's screens are now largely missing, this difference in treatment is apparent in the remains of the dressed ashlar jambs; and it has been illustrated in Plate II, in which a conjectural restoration of the screen as it originally appeared is attempted.

With Altamish's erections at the Qutb must be mentioned his Tomb¹ situated immediately west of his own northern extension of the mosque. The tomb takes the form of a simple square chamber, and it was covered originally by a circular dome, carried on a form of squinch-arch, which serves to negotiate the difference in shape between the square plan below and the circle above.

Here again is seen a surface decoration of a predominantly Saracenic type, but little influenced by definitely Hindu forms, though these latter occur promiscuously in the interior as isolated features in one or two bands of carving below the arch tympana, in a moulded string-course of the pendentive recesses, and again forming the pendant "drops" of the block-corbels in the angles of the octagonal dome-drum.

Practically the whole interior surface, both walls and roof (with the exception of the lower walls on all but the west side, which were probably plastered), is intricately banded with a diaper of arabesque designs, elaborated with Quranic inscriptions in both Naskh and combined Kufic and Tughra characters which frame the arched openings and recesses and form a frieze to the walls. Marble is introduced only in the central

¹ It should be remarked that the identity of this tomb as that of Altamish has not been definitely established. It contains no commemorative inscription. In the *Fatuhât-i-Fîroz Shâhi*, Fîroz Shâh refers to the college and the tomb of Altamish as possessing corner towers, pillars and concrete flooring. That description would not apply to this building but, as Sir John Marshall points out to me, it does apply very accurately to the Sultan Ghari Tomb in the neighbourhood; and this latter tomb, as we learn from an inscription, was erected by Altamish for his son. It is thus quite possible that the Tomb ascribed to Altamish may not be his.

mihrab and in the cenotaph¹ in the middle of the tomb chamber; the flanking mihrab recesses in the west wall, which are of similar design, being of red sandstone, with which material most of the interior is faced. The attached angle-mutakhas that form a distinctive feature of Altamish's extension of the great screen of the mosque appear similarly in the jambs of the doorways and mihrab recesses and beneath the octagonal dome-drum of his tomb. The exterior of the tomb is very simple. A sparsely banded treatment in grey quartzite stone, similar to that of the gates of the mosque, appears in the plain ashlar-dressed external walls, and contrasts with the central bays of red sandstone, on which a decoration of purely Saracenic arabesques and Arabic inscriptions is concentrated. It is curious that none of the inscriptions on the tomb contains any historical record, the writings being exclusively extracts from the Quran.

**ALAU-D-DIN
KHALJI'S
EXTENSION.**

✦ After Altamish — and an interval of some 90 years — comes the Afghan, Alau-d-din Khalji, whose ambitious schemes for still further extension failed of accomplishment before his death in 1315 A.D., and were then abandoned.

(His extensions, indicated in the plan in Pl. I, were made to north and east, the limits of Altamish's southern alignment being maintained. Alau-d-din's erec-

¹ The takhkhana vault beneath is curiously out of alignment with the chamber above, and on excavation by Mr. Sanderson in 1914 was found to be filled with fallen rubble debris, to have disturbed which would probably have jeopardised the safety of the whole structure. The three little light shafts and the original step descent on the north side have, however, been permanently exposed to view.

tions, again, were marked by a symmetry that seems to have been instinctive in the Saracenic architect, and his gateways to north and east were set in precise alignment with those of his two predecessors; the Alai Darwaza to the south having, however, necessarily to be placed to one side of Altamish's existing gate.

This gateway is the most noteworthy feature of Alau-d-din's additions. Built of finely worked red sandstone, with an external relief of marble disposed in incised bands and panels, it is of exceptional merit architecturally. Its excellent proportions and simple composition, with pierced central openings echoing the contour of the covering dome, must be seen at dusk silhouetted against an evening afterglow to be rightly appreciated; though the loss of most of the upper wall-facing and the original parapet is necessarily a detraction. >

The present square outline of the parapet of the facades is almost certainly an innovation on the part of Major Smith, who carried out extensive repairs to the gateway in 1828. As is very clearly apparent in the treatment of the red-stone facing and the marble dressings that still remain intact, the facade in the original design rose higher in the centre than at the sides, and the prominent marble string-course, which marks the difference in treatment between the upper and lower portions of the flanking bays, was carried up and round the central archway. Evidence that these flanking bays were lower is furnished in the return angles of the upper marble panels that are still preserved; for the margin at their sides would be carried

round along their top of equal width to complete the "return".

The greater thickness of the centre portion of the west parapet wall, visible from the roof, is a corroborative indication of this raised feature in the original work that has survived the extensive repair operations of 1828. The more harmonious effect of this original treatment of the facade rising into the mass of the dome-background, as compared with its present abrupt termination, is very apparent if we consider the restoration of the gate illustrated in Pl. III and the photograph of it as now restored. (Pl. XII).

The interior proportions of the gateway are again most pleasing; while the recessed corner arches of attractive "horse-shoe" form carrying a plain spherical dome over the square chamber are an especially happy solution of this universal constructional difficulty.

The development of Saracenic ornament attained in Alau-d-din's period is clearly revealed to us in the arabesque decoration of this south gateway. The broad, flat, diapered surfaces of the red-stone jambs are essentially Saracenic in feeling, and contrast curiously with the more indigenous ornamentation of sinuous tendrils and rounded lotus buds that frames the inscribed pilaster-panels between the smaller openings; while the projecting marble plinth-moulding might well have been brought direct from some Hindu shrine.

The inscriptions framing the archway on the west, south, and east fronts of the gate record the name and titles of "Abul Muzaffar Muhammad Shah (Alau-d-din Khalji), the Sultan," and his erection (actually extension) of the mosque in the year 1311 A. D.

The junction of Alau-d-din's masonry with that of Altamish just west of the former's red-stone gateway is very clearly marked, as is the slight divergence of his treatment of the window openings with their red-stone jali screens.

Only a short length of Alau-d-din's enclosing colonnades connecting his southern gateway with the south-east corner of his extension is now extant. The remaining portions have been represented on the site by a continuous screen of shrubberies along the east and north fronts. From his intended northern colonnade, towards its west end, project the foundations of a large gateway set in alignment with the corresponding north gates of his predecessors.

Of Alau-d-din's eastern gate, represented by the gap in the shrubbery through which the visitor enters the quadrangular enclosure on leaving his conveyance, no vestige now remains ; but that there existed such a feature here is indubitable. This emperor's projected northern extension of the great arched screen, again, is only traceable in the low masses of masonry core which are all that now exists of his unfinished arch-piers.

Ambitious in his architectural, as in his political designs, Alau-d-din aimed in his projected extensions at completely dwarfing the efforts of his predecessors, and his great arched screen was designed to extend as far again as their's combined, and be of twice the scale. His projected minar, conceived on a scale that should double the proportions of the existing minar, never rose above the first stage, and his whole scheme was abandoned at his death. Though it comprises only

the original core of the structure and that in a dilapidated condition, it is nevertheless possible to recognise several distinctive features that this great minar was intended to exhibit. The curious treatment of angular fluting, which may be likened in section to the outline of a flattened letter "M" separated by deep canellures, is very distinct, as also is the treatment of shallow curved recesses still apparent in the rough core of the double base (see perspective view, Pl. II); while the whole minar was evidently intended to be based on a high wide chabutra. Inside the minar it is very clear from the relative heights of the encircling windows which pierce the walls at every quadrant that the means of ascent was to be a very gradual ramp, and not a stair as in the smaller minar of Aibak and Altamish. Entered upon through a doorway on the east, the ramp would follow the inclination of these windows and ascend the minar in a direction from right to left.

**ALAU-D-DIN'S
GREAT SCREEN
EXTENSION.**

It may be of interest to set out here the several items of evidence, definite or deducible, by which it was possible to build up (with some assurance as to its probable authenticity) the conjectural restoration of the great screen of Alau-d-din illustrated in Pl. II, with no other material, at first glance, than that provided by the low fragmentary masses of masonry which are all that is now left of this structure. In the first place, the size and relative spacing of these fragmentary piers, to which portions of the original ashlar facing still adhere, give a definite indication of the elevational treatment of the screen as regards mass and void; the proportions of the openings as to height being copied

from those of the earlier screens which the extension was to augment.

Thus, the first arched opening (at the south end) is found to correspond approximately in size with the side arches of Altamish's contiguous screen; the next one, of greater span, necessarily rising higher in the same proportion; and the third opening, repeating the first, results in an approximate duplicate of the detached extension of Altamish. The greater height, as compared with this latter, of the flanking portion of Alau-d-din's screen results from the wider piers at the extreme ends of the facade the decorative motif of the earlier screens, with its banded architrave treatment framing the arch and returning along the top of the screen, being repeated in his design. The rise in the height of the centre bay of this flanking portion of Alau-d-din's screen is occasioned by the greater height of the arched opening it contains.

Indubitable evidence of the high dominating central facade of the Alau-d-din screen is to be found in the greatly increased thickness and bulk of the remains of the piers composing it, which break forward beyond the normal line of frontage. Relative widths of openings contained in it reveal again the approximate heights of its arches, proportioned on those existing; and the treatment of the wings with their higher centre bays affords a clear indication of the design intended for the central portion of the screen, and predicates the rise of its centre bay. The small side openings of this prominent central facade, rising (according to their relative proportions) to but approximately half the height of the great centre archway, leave room above them

for a repetition of the smaller subsidiary arched openings that were a feature of Qutbu-d-din Aibak's original screen; and thus the motif of the whole extension proposed by Alau-d-din but repeats in a general way (and logically enough) the treatment he found already existing in the combined screens of his two predecessors.

With regard to the architectural arrangement of the interior of Alau-d-din's prayer-chamber, the position of the openings in his frontal screen again furnishes a reliable clue to the probable spacing of the columns, and seems to indicate very clearly that the interior design of his predecessor's prayer-chambers was again called upon to furnish the model for his own. (See Pl. I).

Altamish's architectural expedient of increasing the ceiling height of the centre bay of his prayer-chamber (of which definite indications exist in the remains of roofing slabs in the back face of his screen) would doubtless also have been further exploited by Alau-d-din, whose greatly dominating central screen archway called for a correspondingly greater increase in the height of the chamber behind it.

ALAU-D-DIN'S MADRASSA.

Alau-d-din's College¹ (madrassa), lying immediately to the south-west of the mosque, is now in a very ruinous condition, but it is possible to visualise from a

¹ It has been suggested that this college was built by Altamish, but I think the balance of probability rests with Alau-d-din; the deciding factor, in my judgment, being the high-drummed domes and the more advanced corbelled pendentive treatment beneath them, which are in distinct contrast to the flat conical Hindu type of dome that undoubtedly covered the Tomb of Altamish originally, and the primitive squinch-arches which carried that dome across the corners of the tomb.

study of its fragmentary remains the appearance of the structure in the days of its founder. The College is built around a simple quadrangular court entered on the north side through a triple gateway of some size, the centre bay of which projects somewhat beyond those flanking it. (Pl. I).

On the south side of the court is located a large square structure covered originally by a dome, now fallen, which is believed to be the tomb of the Sultan Alau-d-din. It was marked originally by a boldly projecting portico, of which remains still exist. Flanking this tomb chamber are two smaller chambers, oblong in plan, which are separated from the centre tomb by narrow passage-ways. In the centre and western chambers were disclosed on excavation what appeared to be indications of a grave. The three buildings at this end of the court are contained in a common walled enclosure, skew-planned on the south side, which leaves a clear passage permitting of circumambulation about them, except in the case of the eastern chamber of the three, where the passage is omitted on the east side and the wall contains an ascending staircase leading to the roof.

The east side of the main quadrangular court was bounded by a simple screen wall from which projects a single chamber, the dome of which, raised on a prominent drum or necking, was repeated symmetrically on the opposite side of the court.

Along this western side is a series of small cell-like apartments, a distinctive feature of which is the method employed of supporting the flat-ceiled roof—a curious combination of Hindu and Saracenic devices. Thus

the centre part of the roof is carried on a wide, deep-soffited pointed arch running axially north to south which,¹ again, is made to carry the ends of flat roofing slabs laid to form a simple diagonal coffer characteristic of the ceiling construction of the aisles of a temple mandapa.

Another noteworthy feature of these madrassa cells is the use of what for the want of a better term may be called a corbelled pendentive in the corners of the two higher domed chambers that break the skyline towards the ends of the facade. It is the earliest instance of this corbelled treatment of a pendentive in India (circa 1290 A. D.), and is by no means an unhappy solution of this constructional problem.

THE QUTB MINAR.

It is a singularly fortunate circumstance that provides us with an almost complete history of the Minar from the commencement of its building in 1199 A. D. to its repair in Sikandar Lodi's reign (1503 A. D.) in the inscriptions it bears; though the ill-advised, if well-intended activities of later restorers have left their mark upon them, and have resulted in rendering the earliest ones very largely unintelligible.

Thus we learn (or are able reasonably to infer) that the minar was commenced by the "Amir, the Commander of the Army, the Glorious, the Great, of the Sultan Muizzu-d-din Muhammad Ghori, who carried it (probably) up to the first storey; when the advent

¹ It should be remarked in this connection that the present layout in which a bajri path is carried under the isolated arch at the north end one of these chambers is somewhat misleading, since there was no gateway or other means of entrance in this position originally.

of Altamish upon the scene resulted in three further storeys being superimposed upon it, and the minar carried to completion. Alau-d-din seemingly had no hand in its erection, being intent on outrivalling it in its imposing height by a still more pretentious minar of his own.

The 5th, and final storey, and probably most of the 4th, owe their existence to Firozshah Tughlaq, who "repaired the minar of Sultan Muizzu-d-din (Muhammad Ghori), which had been struck by lightning, and raised it higher than before."¹ From this quotation, and from the very noticeable reduction in the relative height of these last two stages compared to the three lower ones, not to mention the marked change in architectural style, it seems practically certain that these two upper storeys of Firozshah have replaced a single and more happily proportioned stage that originally crowned the minar of Altamish.² (See Pl. IV).

The last of these earlier recorded repairs is referred to in the inscribed frieze of the entrance doorway at the foot of the minar, where we learn that "the minar of his majesty.....Shamsu-d-din..... in the reign of Sikandar Shah (Lodi)..... was repaired.....in the year 909 H. (1503 A.D.)."

¹ *Fa'uhat-i-Firozshahi* (Elliot and Dowson, III, 383'.

² As Cunningham remarks:—"Of the existing 379 steps. 2 belong to Major Smith's cupola, and 37 to the upper storey of 22'-4", which leaves 339 steps to the four lower storeys. In the time of Abul Fida (1330 A.D.) there must consequently have been 21 steps above the fourth storey to make up his total of 360 steps. There would be equal to 13 feet in height, making the total height in his time 228'-9" or 9'-4" less than at present (238'-1") (vide *A.S.E.*, I., 195n)."

While on the subject of the repairs executed to the minar, it will be convenient to record the attentions of later restorers to which the structure has been subjected within the last one hundred and twenty years. "On the first of August 1803 the old cupola of the Qutb Minar was thrown down and the whole pillar seriously injured by an earthquake."¹ About two years after, the Governor-General authorised the necessary repairs to be begun, and the work was entrusted to Major Robert Smith of the Engineers, who completed it by the beginning of the year 1828, at a cost of Rs. 17,000. All the forms of the mouldings were carefully preserved, but the rich ornamentation omitted (quite rightly, from an archæological stand-point, be it said).

As General Cunningham observes,² this part of the work appears to have been done with much patience and skill, and reflects great credit on Major Smith as a conservator of ancient monuments. The General's castigation of the "restoration" performed by Major Smith upon the entrance gateway, and his inference from the latter's report "that the whole of the entrance doorway is Smith's own design, a conclusion which has already been drawn by Mr. Fergusson, who denounces the work as being in the true style of Strawberry Hill Gothic", are however, very much beside the mark, as both Cunningham and Fergusson would have realised had they been acquainted with the existence in Cairo of kanguras, of the same somewhat unusual stepped shape as crown this doorway, at the

¹ *A. S. R.*, I., 199.

² *Ibidem.*

tomb of the Sultan Kalaun (dated 1284 A. D.), and again at the mosque of Al Azhar there, which feature M. Saladin¹ would date from the year 1208 A. D. The strictures applied to this gateway are all the more remarkable in view of the fact that the same original kanguras (in which the "Strawberry Hill" allusion centres) exist again on the 2nd storey opening of the Qutb minar itself, which should have been apparent to their critics. One of the inscribed slabs over the entrance doorway has, it is true, been replaced in its wrong order by the restorer, but, as is apparent through a close scrutiny of the work, all the masonry above the architrave: kanguras, cornice, inscribed frieze, and flat architrave alike (with the exception of the centre stone of the last, and a plain narrow band immediately beneath the frieze) is patently composed of the old original weather-worn stones. The actual new work is readily distinguishable and is confined to the masonry below the architrave, as indicated by the "hatching" in the sketch in Pl. V. *It* certainly is open to stringent criticism, as are, indeed, the "Gothic" balcony railings, and the irritating "Bengali" chattri, now happily deposed. But I think it due alike to the repairer and to the modern student of Indo-Saracenic architecture to expose the fallacy of the criticism levelled at this doorway, which, originating in the authoritative dictum of Fergusson, has obtained currency for the last fifty years.

The two separate minars believed still to be standing in Ghazni provide us at once with both the imme-

¹ *Saladin*, I., 86-7.

diate prototype of the Qutb Minar and an early instance of the custom among the Muhammadans of erecting such columns in the embellishment of their cities. The ultimate origin of these towers is probably to be found in such Sassanian structures as the towers of Jur and Firozabad in Persia, the Chaldean ziggurat observatories, as at Khorsabad, and the Tower of Babel. It is noteworthy that the external helicoidal ramp ascending these Sassanian towers is repeated again by the Muhammadans in the square minar attached to the mosque of Ibn Tulun, at Cairo, which, though a later restoration, was modelled on the original one (dating from c. 990 A. D.) it has replaced ; and this, in its turn, was copied from the minaret of the mosque at Samarra, near Baghdad, founded by the Khalifa Wathik ibn Motassim in 842 A. D., as is recorded by Makrisi.¹

The alternate rounded and angular fluting that is such an attractive feature of the Qutb minar is undoubtedly a development of the polygonal outline of the Ghazni example ; the connection of this feature with any Hindu or Jaina parallels is, I think, too fortuitous to be in any degree probable.

Compared with that of the mosque, the decoration of the Minar is consistently Saracenic in character from base to top ; though the somewhat hybrid style of Firozshah's later additions is noticeably distinct. Features of typically Hindu origin are practically non-existent, and only appear as narrow string-courses edging the inscribed bands, and as two minor members

¹ *Saladin*, I., 91.

of the projecting balconies, the remaining ornament being distinctively Saracenic in character.

The wide encircling bands inscribed with Naskh lettering afford a delicate relief to the plain fluted masonry of the great shaft, and are indeed a happy incident of the design ; but perhaps the most interesting and effective features are the boldly projecting balconies at every stage, supported on an early type of the "stalactite" corbelling that is such a universally characteristic and attractive feature of Saracenic architectural decoration, common alike to the Qutb in India and the Al Hambra in Spain.

A sketch, to a large scale, drawn with the aid of binoculars from the roof of the Alai Darwaza, shewing the details of the "stalactites" of the first storey balcony, appears in Plate VI. The stepped kanguras indicated in this sketch in place of the present "quasi-Gothic" railing of Major Smith are a conjectural restoration, based on the original kanguras existing over the doorways in the first and second storeys of the minar. The probability that such battlements did exist originally in this position is supported by such evidence as is forthcoming from the indifferently drawn illustrations of the minar published about the beginning of the nineteenth century,¹ valueless though these drawings are as accurate records.

The illustrations in Plate IV afford a comparison of the minar as I conjecture it to have been completed

¹ Ensign Blunt's account. *Asiatic Researches of Bengal*, IV. 324, (1794 A.D.); Blagden's *Brief History of Ancient and Modern India* (1805 A.D.).

by Altamish with the present minar as repaired by Firozshah Tughlaq, who "raised it higher than before". The authenticity of the crowning chattri of the former rests frankly on nothing more definite than that which may exist in a certain propriety of design ; for no contemporary example of such feature now remains to us. In the case of the chattri indicated on the minar as repaired by Firozshah, however, there need be little mystery, notwithstanding the provocative "broken harps"¹ and other nebulous features appearing in the mis-shapen travesties of the structure perpetrated by folk who had the opportunity of seeing the minar when a worthy record of its distinctive features would have been so valuable to latter-day comers in the field. Chattris of Firozshah's period are fortunately left to us at the tomb of Khan-i-Jahan Tilangani, the Khirki Masjid and other buildings in Delhi, and give at once a clear indication of the type of cupola that crowned the minar in the 14th Century A.D. ; and from these the chattri shewn in the illustration has been adapted.

**TOMB OF INAM
ZAMIN.**

The Tomb of Inam Zamin, situated immediately to the east of the Alai Gateway (through which it is approached) is a much later structure, dating from the time of the Mughal emperor Humayun. The tomb has no integral connection with the Qutb group,² and its extreme proximity to it is probably to be explained by the supposition that Inam Zamin (otherwise Inam Muhammad Ali), "a member of the Chistia sect, a

¹ *A. S. R.*, I., 198.

² For this reason it is omitted from the perspective reconstruction illustrated in Pl. II, which is intended to represent the appearance of the monument in the time of Alau-d-din Khalji.

Sayyid descended from Hassan and Hussain," who is said to have come to Delhi from Turkestan in Sikandar Lodi's reign, held some office of importance in the mosque.

The tomb is a simple structure some 24 feet square in plan, surmounted by a dome rising from an octagonal drum, decorated with a double row of kanguras and with a treatment of marble panelling above the chajja. The spaces between the twelve square pillasters supporting the superstructure are infilled with a geometrical jali of red sandstone in all but the centre bays of the west and south sides, which contain respectively a mihrab and an entrance doorway, both wrought in marble. Over the latter is an inscription in well-formed Naskh characters recording the name of the saint. Marble is again used in the cenotaph and as a decorative relief in the interior, the radiating ribs of this material in the sandstone dome being a feature of interest. The whole structure of sandstone was originally covered with finely polished stucco, of which a considerable portion is still extant.

Of the remaining buildings within the Qutb area little requires to be said. They have no archæological connection with the original monument.

There are the remains of a Late Mughal serai, through the east entrance archway of which the visitor enters the Qutb enclosure. The greater portion of the southern half of this structure, which was very dilapidated, has been dismantled to open up a symmetrical approach to the Qutb mosque area proper.

To the immediate north of this serai are the dilapidated remains of a Late Mughal garden containing

the ruins of some graves in the centre, and of a mosque in the west wall. These remains have also been latterly conserved and the grounds laid out.

The "Bengali" chattri of red sandstone, now situated to the south-east of the mosque, formerly crowned the Minar, on which it was erected by Major Smith in 1828 to replace the fallen chattri of Firozshah Tughlaq. It was removed at the instance of the Viceroy, Lord Hardinge, in 1848, to whom its distressing incongruity with the architecture of the Minar was apparent, and placed on a mound within the actual enclosure of Alau-d-din's extension of the original mosque, whence it was removed to its present position in 1914.

RÉSUMÉ OF EXCAVATION AND CONSERVATION WORK CARRIED OUT AT THE QUTB SINCE 1910.

As a preliminary to undertaking any serious excavation work in the Qutb area it was essential to divert the old Delhi-Gurgaon Road which formerly ran right across it, touching the north-west corner of Altamish's Tomb. The proposal for this diversion was made as far back as 1909 when Delhi was still under the Punjab Administration, and before the creation of the enclave around the New Imperial Capital—an event that naturally gave a great stimulus to archaeological work in Delhi. A comprehensive programme of Archæological Works was prepared under the orders of the Government of India by the late Mr. Gordon Sanderson for preserving the many important historical monuments in the en-

clave, and the Qutb group deserved found a prominent place in the list of projected works.

The roadway removed, and the then cultivated area about the Alai Minar to the immediate north of it acquired, the field was open to an exhaustive scheme of excavation, which, as the work progressed, was successful in disclosing the hitherto hidden remains of Alau-d-din Khalji's extension of the great arched screen. Some idea of the magnitude of the work may be gathered when it is stated that the clearance of the site to its present (and original) level entailed the removal of some three to four feet of earth and stone debris over the whole area. The disposal of this vast amount of "spoil" became a problem in itself, and frequently threatened to stop further progress with the work. Fortunately the construction of the many new roads required in the New Capital served as an opportune channel of relief, and a great deal of useless stone debris was thus disposed of.

Early in the work Smith's chattri, which had been deposed from its former place on the summit of the minar and placed on a mound within the present mosque enclosure at the instance of Lord Hardinge in 1848, was again shifted to its present position where, however, it was at first set up on another of the mounds built by Sir Thomas Metcalfe. Both mounds have now been removed and the chattri placed upon the ground, as it at present stands.

Altamish's extension immediately to the north of the original mosque was cleared of some three feet of earth and stone rubbish, when a series of column bases was disclosed in this area. A lower plinth of the original

mosque was also unearthed some five feet beneath the ground level and the original foundations here exposed. A start was made on the clearance of the area reclaimed by the diversion of the old road, and by the end of the year 1912-13 the whole of Alau-d-din's northern extension had been exposed. While the work of excavation was going on the needs of conservation were not lost sight of and useful repair was executed on the old dilapidated masonry of the great screen.

The complete clearance of the site necessitated the demolition and removal of the old dak bungalows and servant's quarters located in the ruined dalans of a "Late Mughal" serai, which had encroached on the original Qutb area. A beginning was made on a system of water ducts and channels required for subsequent irrigation purposes, and something was done towards the laying out of bajri pathways on the site.

During 1913-14 a pumping plant was provided, and the north court of Alau-d-din's extension, which had been cleared in the previous year, was grassed, planted with trees, and laid out with paths and shrubberies to indicate the mass of the fallen colonnades; the missing wall of the east facade was extended up to the north-east corner of the area, and the base of the Alai Minar built up on the original remains disclosed in the excavations.

A new red sandstone Baradari was added to the present dak bungalow (which escaped the fate of its fellows encroaching on the site), and the furniture and equipment of the bungalow improved to meet the needs of the increasing number of visitors.

The paving of Altamish's colonnades was replaced, where missing, with concrete laid at a slightly lower level to differentiate it from the original work. Excavations west of the original mosque were taken up, and the tahkhana or crypt of Altamish's Tomb revealed. The base of an adjoining structure to the south of the Tomb also came to light during the clearance, revealing a treatment of red stone facing inscribed with bands of Arabic lettering. It would seem that these remains formed originally the enclosing walls of an internal open court at the back of the mosque.

During this year the clearance of Alau-d-din's College buildings was completed, except for grassing the court. On the south side of the quadrangle, the level of the court was found to be slightly raised, as disclosed by the levels of the thresholds of the openings of the west facade, which were higher at this end. The outer wall of the college on the north, east and west sides was found fairly intact up to the plinth level, which was marked by a string-course similar to that of the original mosque. Shrubberies, enclosed by low inga hedges, to indicate the mass of fallen buildings were planted on the north side of the court. Contrary to local belief, which assigned to this position the reputed grave of the Sultan Alau-d-din Khalji, no trace of any tomb was found on the removal of the debris; though evidence of what appeared to be a grave was found some seven feet beneath the surface in the larger ruined structure on the south side of the court immediately opposite, which is thought to be the Tomb of the Emperor. Fragments of marble paving still *in situ* lend colour to the assumption that the building

was intended to accommodate the remains of a person of importance. The present repair of the grave here indicates the extent of the remains disclosed.

The very large quantity of earth and debris removed from this part of the site was utilised in forming the raised terraces to the south of the Qutb enclosure.

The precincts of the Tomb of Inam Zamin, east of the Alai Darwaza, were also cleared and the ground dressed ; and a circular approach road under construction for vehicles entering the area was carried to completion in this year.

Altamish's paving along the east side of the original mosque of Qutbu-d-din, and along the contiguous sides up to the centre porches, north and south, was removed to disclose permanently the full depth of the original plinth, and a box drain constructed to carry away the rain-water from the resulting trench. The presence of sculptured Hindu stones built into the plinth thus disclosed is one of the factors indicating the Muhammadan origin of this portion of the structure.

During the year 1915-16 the work of exposing the original plinth of the mosque of Qutbu-d-din was completed and the eastern and southern gates were "boxed" with low retaining walls, leaving them permanently open to view. An excavation made to trace the foundation level of the Alai Darwaza was successful in disclosing the deep elaborately carved plinth, as well as the remains of original steps in the south and west doorways, which had been covered up by modern steps whose "rise and tread" did not correspond with the original ones discovered beneath them. This has

enabled the restoration of the southern and western flights to be carried out. As the present floor of the gateway is also of more recent age, built over the original one, it was found necessary to recess an additional step in the flooring to join the original steps with the present floor ; it being infeasible to lower the floor to its original level, since this would have entailed building up the base of the seat around the interior walls of the gate. The ground to south and west of the gate was reduced in level to that of the original paving here, and a series of paths laid out to give access to adjacent buildings.

An original flight of steps in the south-east corner of Alau-d-din's College, leading to the roof, was put in order to enable visitors to ascend and obtain a comprehensive view of the area. Further clearance was carried out around Altamish's Tomb, and the remains of a later pavement disclosed some twelve inches above the original level. A strip of land to the north of the Tomb was acquired, and the prayer-chamber of Alau-d-din's extension of the mosque was cleared of debris, laid with gravel and demarcated by inga hedges. All the remaining fragments of the piers of his great arched screen were repaired and secured from further decay.

By the end of the year 1914-15 the bulk of the work undertaken at the Qutb had been completed. In the following year, however, several of the pillars in the colonnade of Altamish, which were leaning at precarious angles, had to be reset ; and in order to compensate for the stoppage of traffic through the Qutb grounds, a new path was made between Mehrauli and Lado Serai. A further improvement was effected by

extending the grounds towards the south, and including in them the area next to the Metcalfe estate.

During 1916-17 the Late Mughal garden with its central chabutra of neglected graves, which was till then under cultivation of crops, was acquired, its walls and chattris repaired, and the enclosure grassed and planted with trees and creepers—thus absorbing the garden into the Qutb grounds, in the north-east corner of which it is situated. Some minor excavation was further done in the rear of Altamish's Tomb, and the base of an ashlar stone wall running parallel with the west wall of the mosque was brought to light, together with the original paving of the court here. It was, however, impossible to do more here than expose the face of the wall, since the remainder of the building extended under the Delhi-Gurgaon road. It is worthy of mention that, in the course of excavation, there came to light a number of fragments of early blue-glazed tiles of geometric design, approximately contemporary with the adjoining buildings. Tiles of the same kind were also recovered during General Cunningham's excavations at the Qutb in 1871, and again during Mr. Sanderson's excavations in 1913. Similar fragments are still occasionally found within the area of Qila Rai Pithora, and there can be little doubt that this particular kind of tile-work was extensively used for the decoration of early Muhammadan structures.

The Qutb Minar.—It has been remarked for some considerable time that the masonry of the third storey of the Minar has bulged. An early photograph in Carr Stephen's *Archæology of Delhi* clearly shows this bulge,

and it is improbable that it has appreciably increased during the last hundred years. The minar was damaged by lightning (as is recorded in the records of Firozshah Tughlaq's reign, as well as on the minar itself) in 1368, and since then it has suffered several severe earthquake shocks, such as the one in 1803, when the cupola was destroyed. It is not improbable that the displacement of the masonry is the result of settlement that occurred while the tower was being built, due to the work being "run up" too quickly and to the excessive use of mortar.

¹"In July 1914 Mr. A. Croad, Executive Engineer, II Project Division, Delhi, examined the bulge in the third storey, and reported that the construction of the walls appears to have been of three kinds of masonry, an outer veneer of Agra sandstone slabs to act as bond-stones, a 'hearting' of rubble stone masonry, and an inner face of ashlar masonry of Delhi stone. He suggests that the outer veneer has merely come away from the rubble, and that, if examined, a space between them would in all probability be found inside. He does not advocate the use of the Fox grouting machine as has been suggested, being of opinion that the pressure of the grout during pumping would tend to displace still further the outer veneer, and considers iron bands would be more feasible and less costly. As there is no sign of crushing on the inside, and no flaking away of the stone there appeared to be no danger."

¹Progress Report of the Superintendent, Muhammadan and British Monuments, Northern Circle, for the year ending March 31st, 1915.

Numerous small cement "telltales" applied across the joints in this storey and in the ground storey where the masonry appeared to be somewhat disturbed have not so far revealed any appreciable further movement in the old fabric, it is reassuring to record.

In any account of the archæological work carried out at the Qutb, it would be graceless not to mention the devoted labours of the late Mr. Gordon Sanderson, Superintendent of the Archæological Department, who was directly responsible for the operations, which were substantially completed before he left the Department to join the Indian Army Reserve of Officers in February 1915. To commemorate his regrettable death of wounds in October of the same year while serving with the Gurkhas in France, the small marble sundial on the lawn to the south-east of the Mosque area has been erected, inscribed with the motto: "Transit umbra: Lux permanet". (The shadow passes: the light remains).

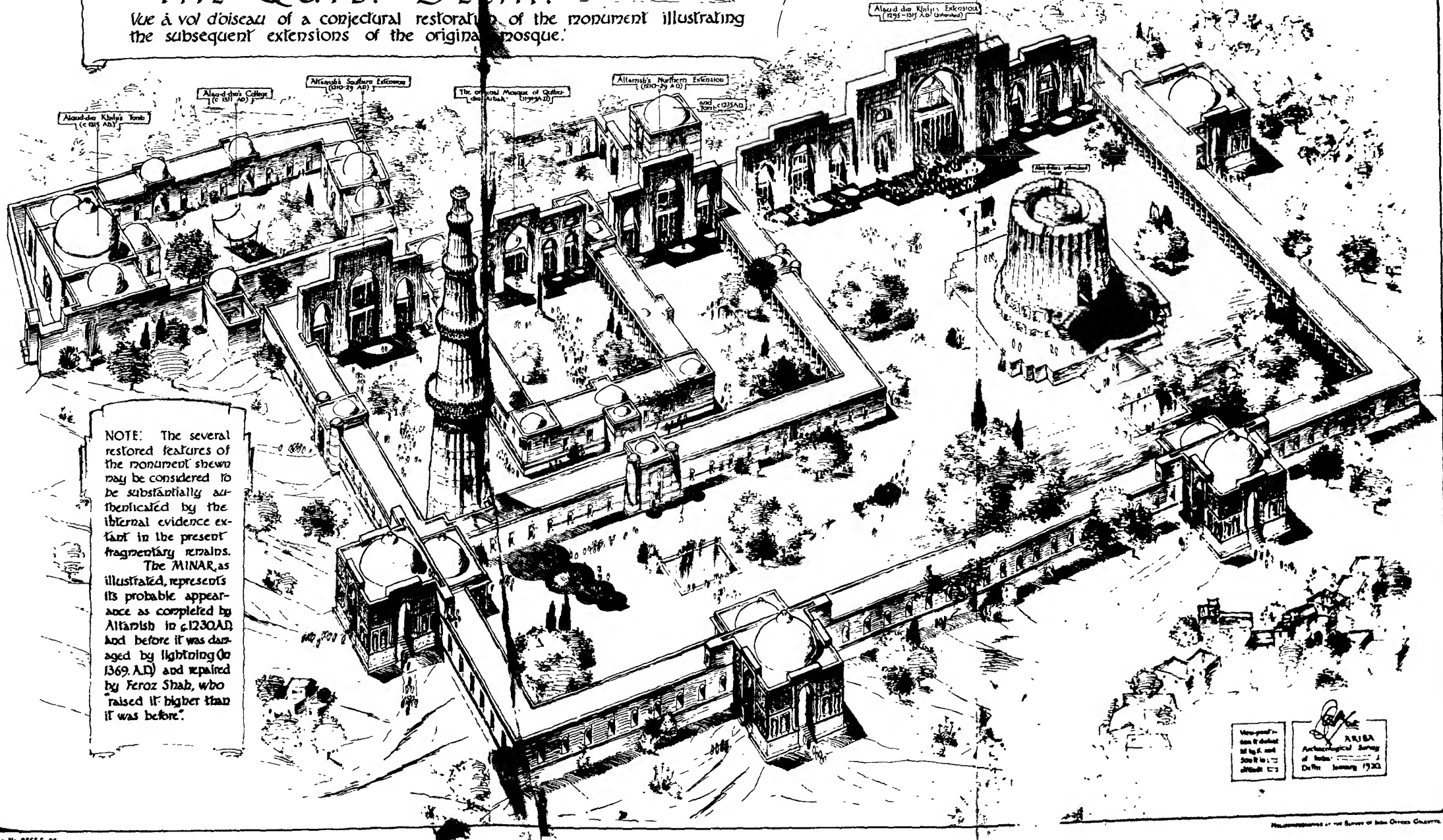
INDEX

| | PAGE. |
|--|----------------------|
| Alai Darwaza | 13 |
| Comparison of original design with modern reconstruction | 13 |
| Altamish's extension of mosque | 8 |
| Altamish's Tomb | 1, 11 |
| Anandpala, Tomara | 1n |
| Alau-d-din Khalji | 12 |
| Alau-d-din's extension of great screen | 16 |
| Internal evidence for reconstruction illustrated in Pl. II | 16 |
| Alau-d-din's extension of mosque | 12 |
| Alau-d-din's Madrassa | 1, 18 |
| Alau-d-din's Minar | 15 |
| Delhi, its founding | 1n |
| Firozshah Tughlaq's repair of minar | 21, 24 |
| Imam Zamin's Tomb | 26 |
| Iron Pillar | 6 |
| Late Mughal Serai | 27 |
| Late Mughal Garden | 27 |
| Muhammad Ghori | 1, 2 |
| Original Hindu Temple ; its extent | 2 |
| Prithvi Raj, Chohan | 2 |
| Qutbu-d-din Aibak | 1 2 |
| Qutb Minar | 2, 20 <i>et seq.</i> |
| Its prototypes | 23 |
| Repaired by Firozshah Tughlaq | 21, 24 |
| Repaired by Sikandar Lodi | 21 |
| Repaired by Major Smith, R.E. (1828) | 22 |
| Stalactite ornament | 25 |

| | PAGE. |
|---|-------------------|
| Qutb Mosque | 2 <i>et seq.</i> |
| Its founding by Qutbu-d-din Aibak | 2 |
| Embodies Hindu temple plinth | 2, 3 <i>n</i> |
| Built of Hindu temple materials | 4 |
| Characteristic ornament and its development | 5, 9, 14 |
| Limits of Aibak's mosque | 3 |
| Extension by Altamish | 8 |
| Extension by Alau-d-din Khalji | 12, 16 |
| Fallen dalans indicated by shrubberies | 15 |
| Résumé of Excavation and Conservation work done | 28 <i>et seq.</i> |
| Sanderson Memorial Sundial | 36 |
| Sikandar Shah Lodi | 21 |
| Shamsu-d-din Altamish | 8 |
| Vigraha Raja, Chohan | 1 <i>n</i> |

THE QUTB: DELHI.

Vue à vol d'oiseau of a conjectural restoration of the monument illustrating the subsequent extensions of the original mosque.

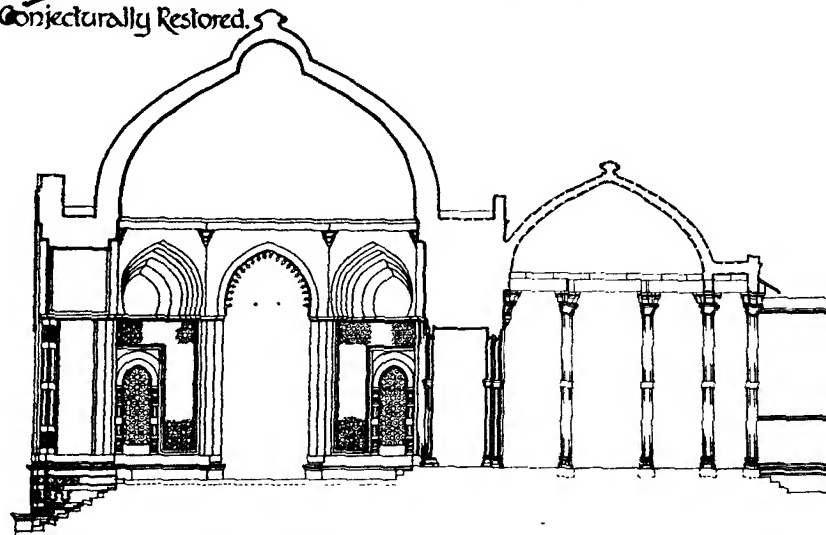


NOTE: The several restored features of the monument shown may be considered to be substantially authenticated by the internal evidence extant in the present fragmentary remains. The MINAR, as illustrated, represents its probable appearance as completed by Alauddin in c. 1230 A.D. and before it was damaged by lightning (c. 1369 A.D.) and repaired by Feroz Shah, who "raised it higher than it was before."

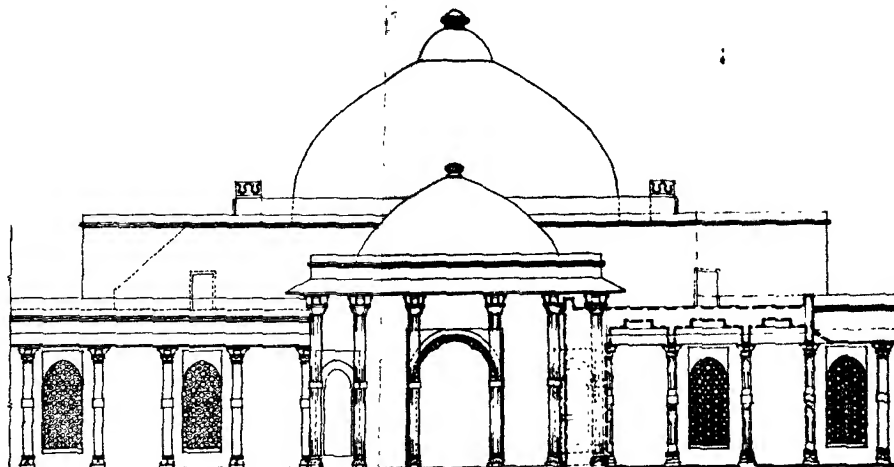
Prepared by the Archaeological Survey of India, Delhi, January 1920.

THE QUTB: DELHI.

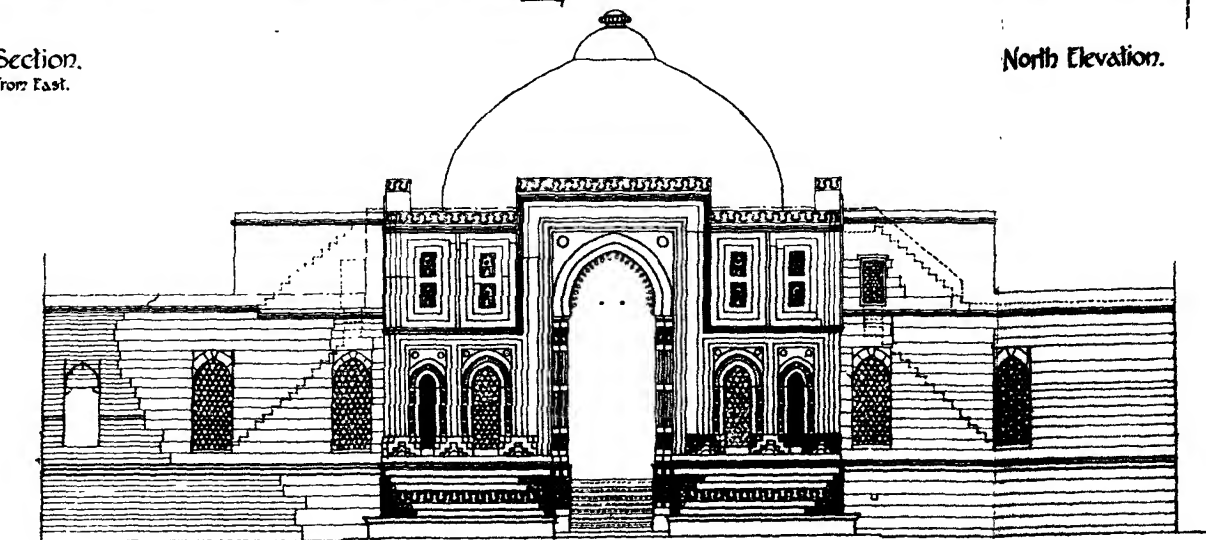
ALAI DARWAZA or GATE-WAY of ALAUDDIN.
Conjecturally Restored.



Cross Section.
Looking from East.

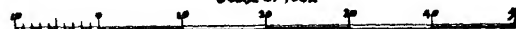


North Elevation.



South Elevation.

Scale of Feet.



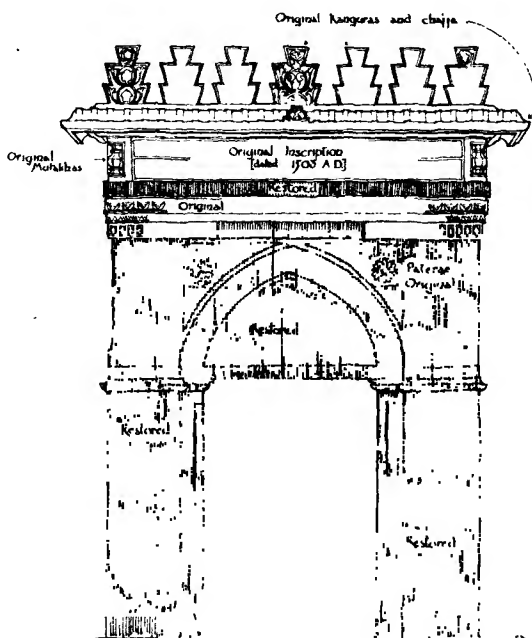
NOTE: The firm black outline indicates the existing structure in section; the dotted outline a conjectural restoration.

Similarly, the gray-wash indicates the extent of existing elevational features: the portion left while being conjecturally reconstructed on the internal evidence extant.



THE QUTB MINAR: DELHI.

Sketch of ENTRANCE DOORWAY differentiating the Original work re-placed in 1828 and the modern repair supplementing it.

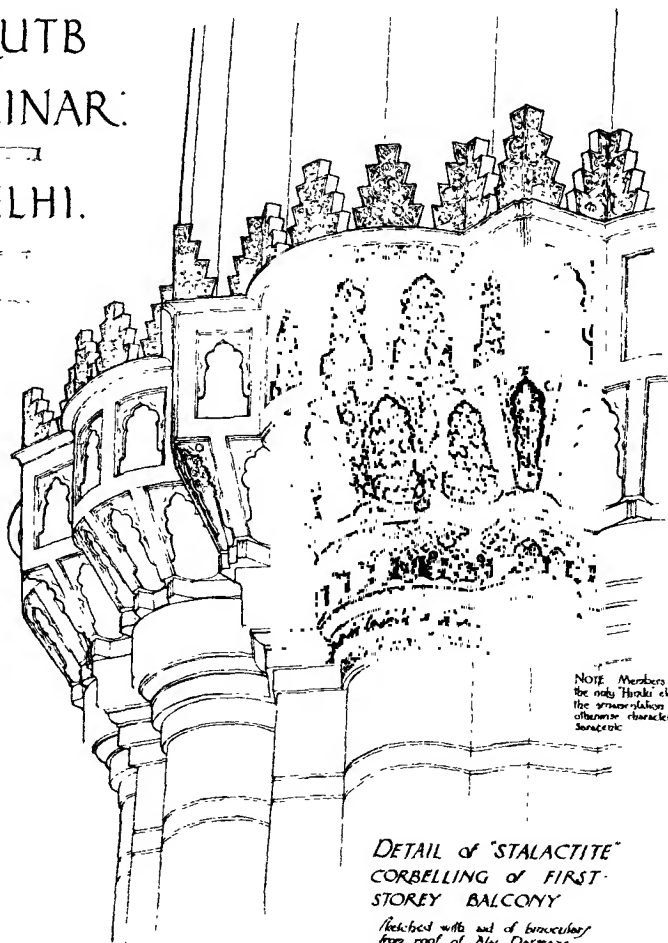


NOTE: The Restored portion is shown hatched, thus—



ARJBA
Archaeological Survey
of India: Jan 1920.

THE QUTB MINAR. DELHI.



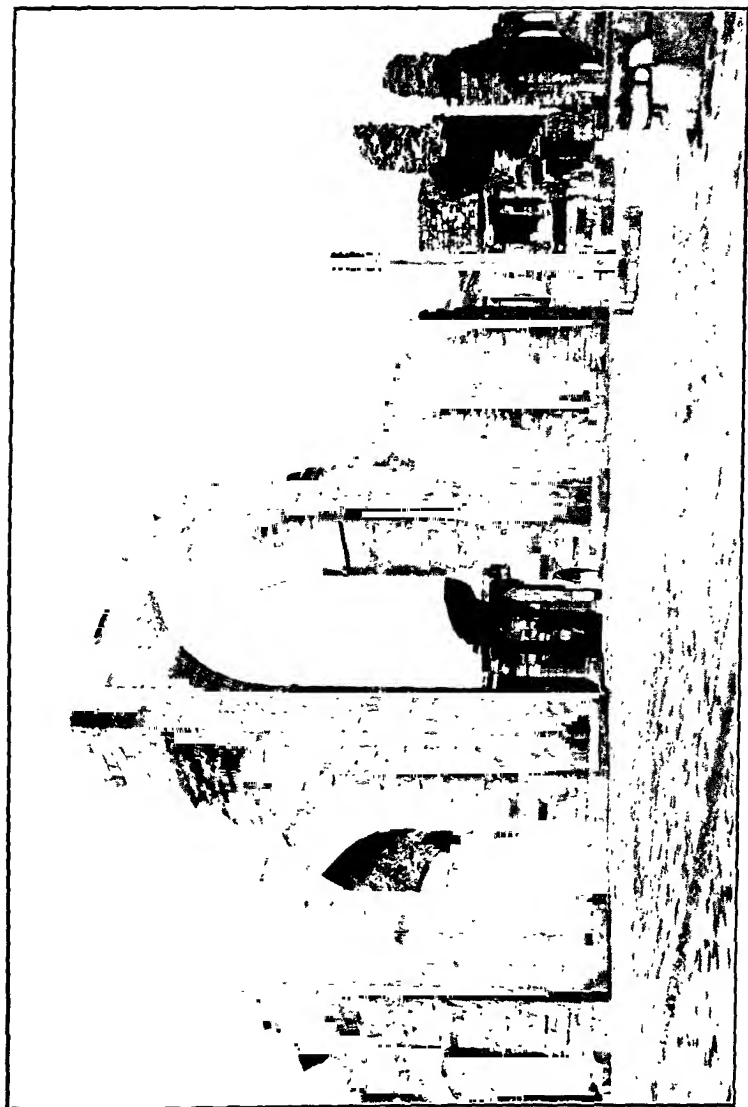
NOTE: Members A.A. are the only Hindu elements of the superstructure which is otherwise characteristically Saracenic.

DETAIL OF "STALACTITE" CORBELLING OF FIRST STOREY BALCONY

Rehobed with end of bracketing
from roof of Alai Darwaza

Note:-The 'kanguras' are a suggested restoration, based on the original ones existing over the door- openings - in place of the present "quasi-Gothic" railing

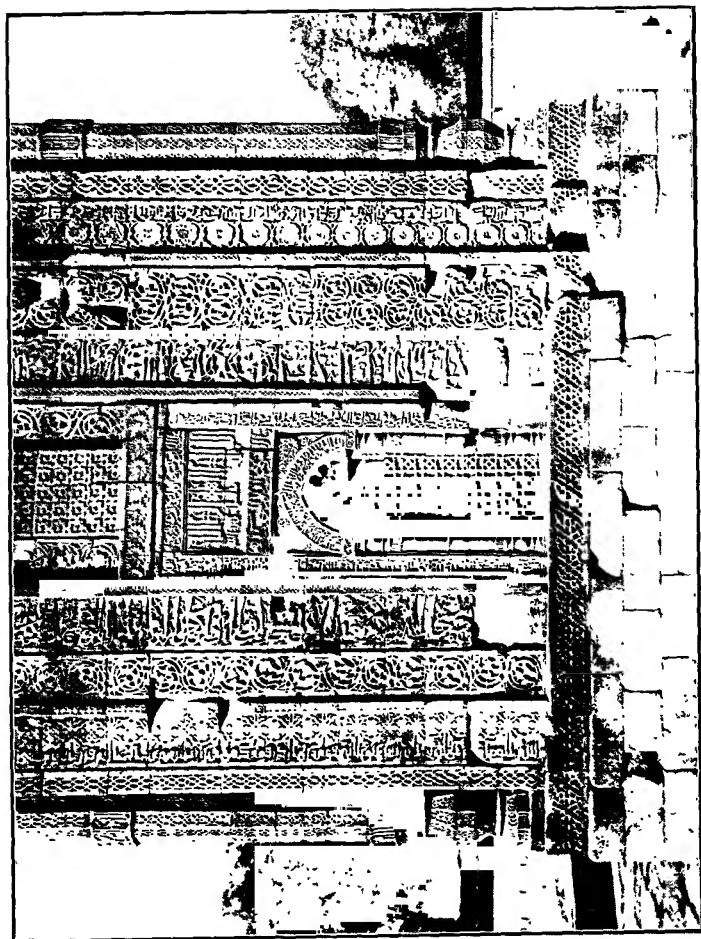
A. B. A.
Archaeological Survey



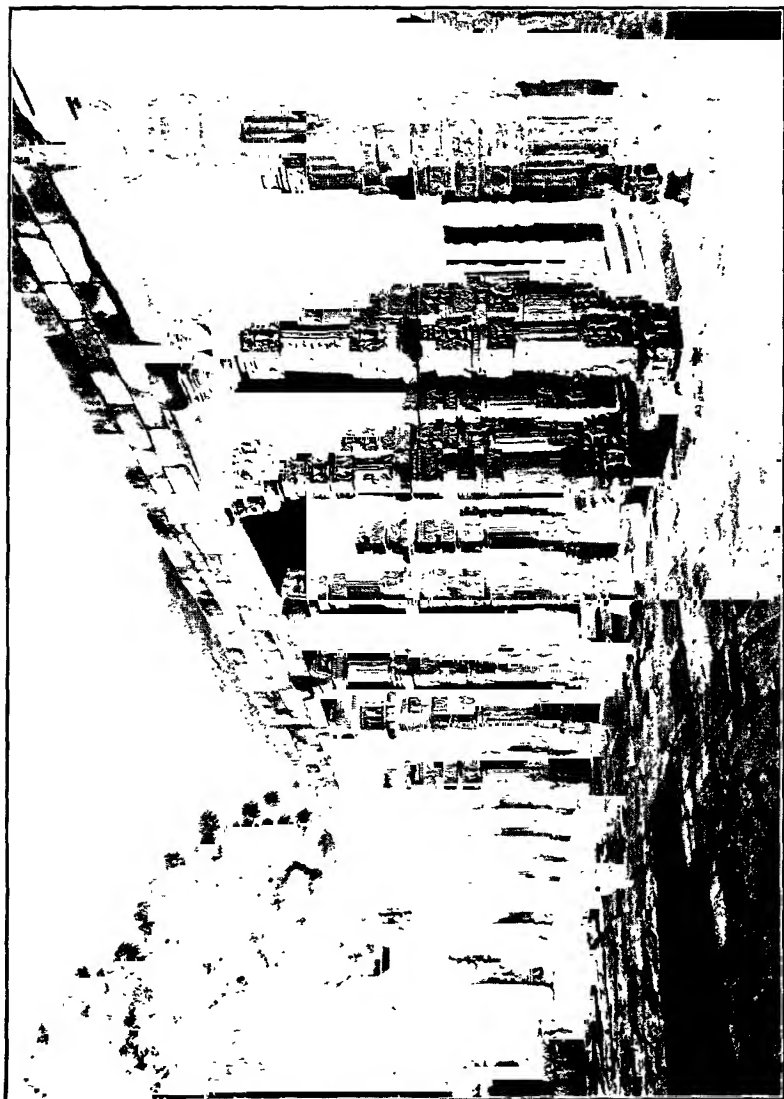
VIEW OF QUTHU'D-D-DIN'S GREAT SCREEN, FROM S. S. E.



DETAIL OF HINDU CARVED ORNAMENTATION OF QUTBU-D-DIN'S ORIGINAL
GREAT SCREEN



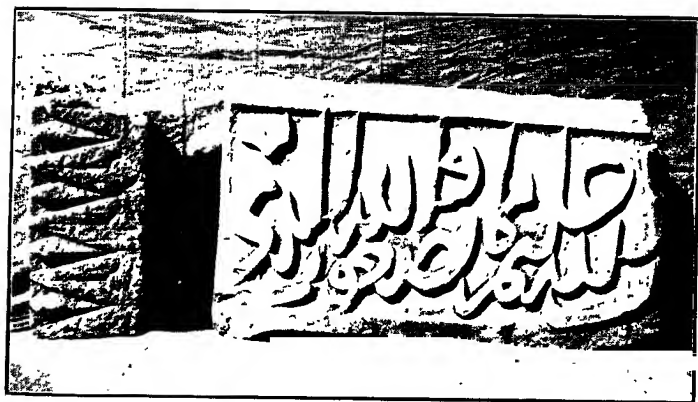
DETAIL OF ARABESQUE SURFACE DECORATION OF ALTAMISH'S EXTENSION OF SCREEN.



VIEW OF EAST COLONNADE OF QUTUB-UD-DIN'S ORIGINAL MOSQUE, FROM N. W.

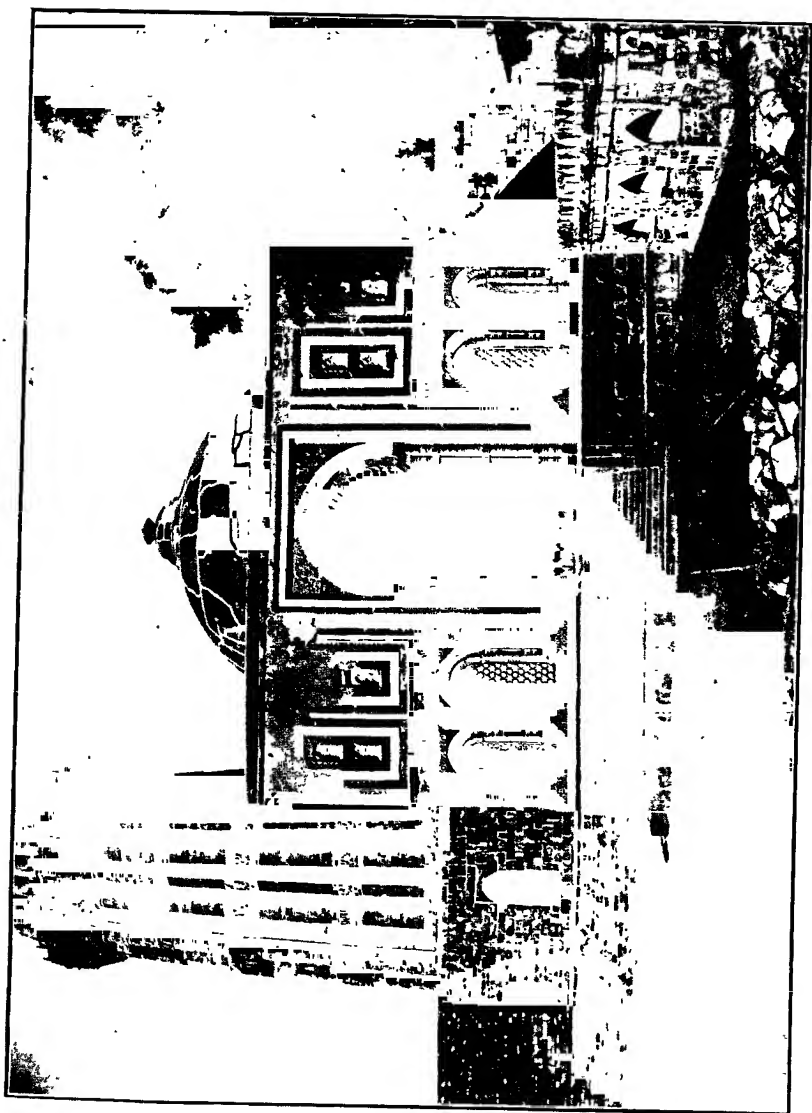


(a) OBERSE OF HINDU SCULPTURED STONES, THE REVERSE OF WHICH IS INSCRIBED WITH NASKH LETTERING (ISLAMIC).



(b) REVERSE OF (a), SHOWING THE NASKH LETTERING.









VIEW OF SOUTH FACADE OF ALAI DARWAZA AS REPAIRED BY MAJOR SMITH, R.E., IN 1828.
(COMPARE RECONSTRUCTED UPPER PARAPET IN DRAWING PLATE NO. III).

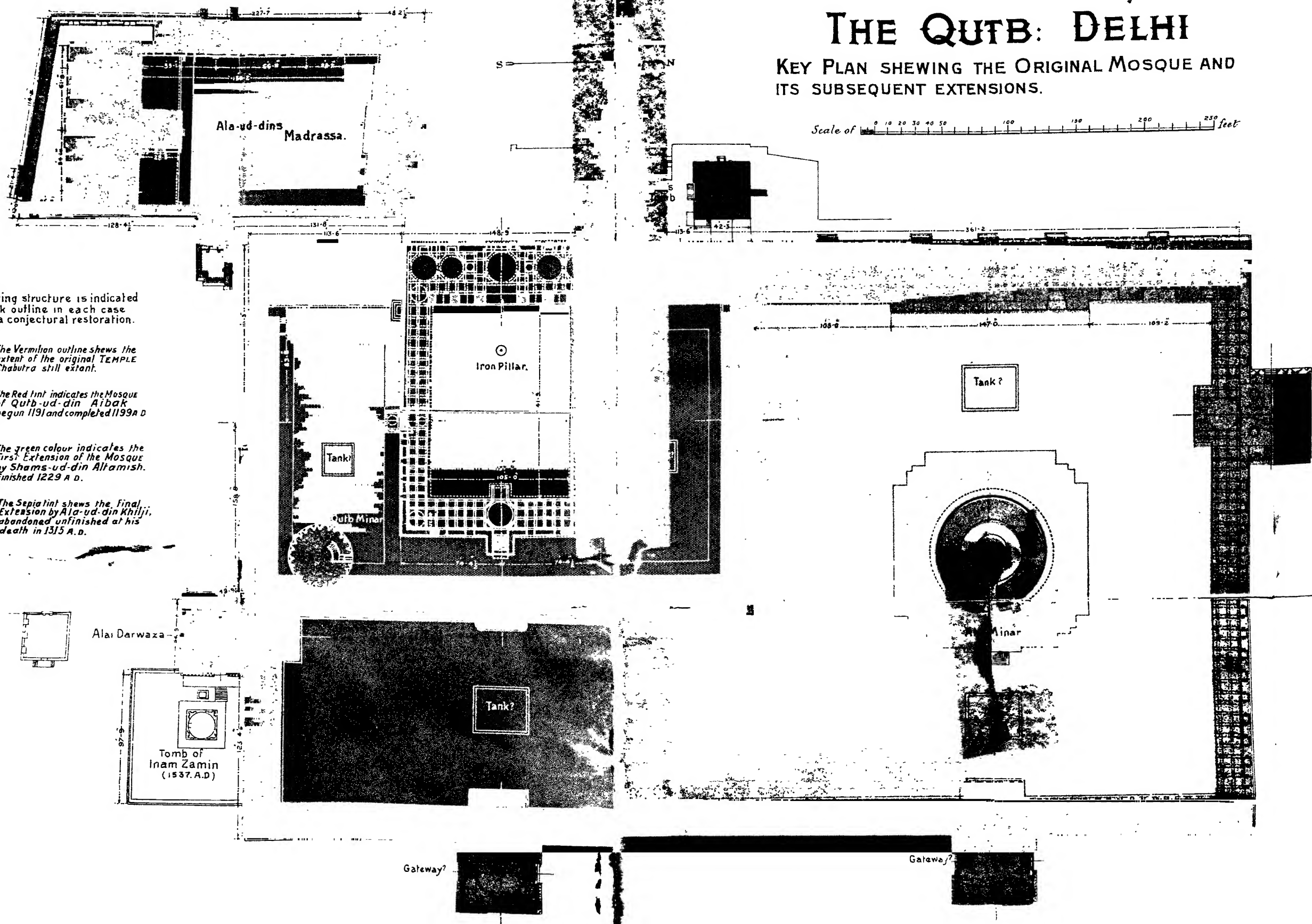
THE QUTB: DELHI

KEY PLAN SHEWING THE ORIGINAL MOSQUE AND ITS SUBSEQUENT EXTENSIONS.

Scale of 0 10 20 30 40 50 100 150 200 250 feet

NOTE: The existing structure is indicated by the firm black outline in each case the remainder is a conjectural restoration.

-  The Vermilion outline shews the extent of the original TEMPLE Chabutra still extant.
-  The Red tint indicates the Mosque of Qutb-ud-din Aibak begun 1191 and completed 1199 A.D.
-  The green colour indicates the First Extension of the Mosque by Shams-ud-din Altamish finished 1229 A.D.
-  The Sepia tint shews the Final Extension by Ala-ud-din Khilji, abandoned unfinished at his death in 1315 A.D.



Central Archaeological Library,
NEW DELHI.

Call No

913.05/Out-frag.

Author—

22840.

Title—

Guide to the Out 6